

2000 PA 141, *the Customer  
Choice and Electricity  
Reliability Act* (MCL 460.10-  
460.10cc)

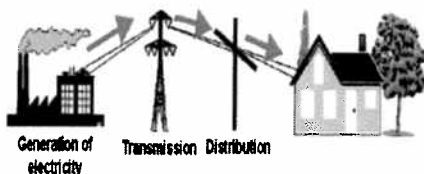
Presentation to the House  
Energy and Technology  
Committee  
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## Outline

- Brief Overview of Electric Industry
- Jurisdiction of Electric Industry
- Events Leading up to PA 141
- Key Provisions of PA 141
- Status of Purpose Provisions (MCL 460.10(2))
- Wrap Up

## Three Segments of Electric Industry



### **Generation:** The Commodity of Power

- Power Plants
- Turbine Spins Magnet around Copper Coils to generate electric current - AC - 60 Hz

### **Transmission:** Transport the commodity

- High Voltage
- Bulk Transport
- Long Range - Nationwide Network

### **Distribution:** Transport and distribute the commodity

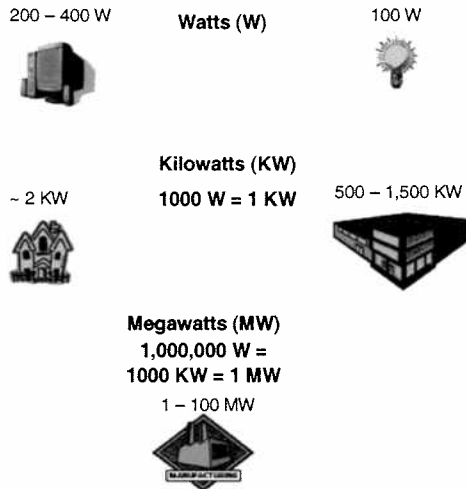
- Low Voltage
- Distribute to end users
- Short Range - Local Network

## Three U.S. Grids

1. Eastern Interconnect  
Includes Michigan
2. Western Interconnect
3. Texas Interconnect



### Generation = Electric Power Measured in units of Watts...



### Electric Industry Unique...

- Cannot Store Electricity (in general)
- Cannot Route Electricity
- Customers “demand” electricity whenever they want it
- Electric Industry must be ready and able to provide electricity at all times, even peak demand.

### Power Plants

#### Base Load Plants

- Typically Coal or Nuclear
- Large ~ 1000 MW (1 GW)
- Operate 24/7

#### Peaking Plants

- Typically Natural Gas
- Smaller ~100 - 500 MW
- Typically only operated for peak demand

### Federal Government Jurisdiction of Electric Industry

Federal Energy Regulatory  
Commission (FERC) has  
jurisdiction over..

- Wholesale Generation
- Transmission
- Licensing of hydroelectric facilities

Nuclear Regulatory  
Commission (NRC)  
regulates

- Nuclear Power Plants

## State Jurisdiction

### What State Act Grants Authority?

- 1939 PA 3 Public Service Commission Act
- 1909 PA 106 Electric Transmission Act
- 1909 PA 300 Railroad Commission Act

### Who is Regulating Agency?

- Michigan Public Service Commission (MPSC)

### What is under state purview?

- Generally, Investor Owned Utilities and Electric Cooperatives
- Retail Generation
- Distribution
- Metering
- Siting of Power Plants & Transmission facilities.

## Old Paradigm—

### Vertically Integrated Monopoly

- **Generation**
  - **Transmission**
  - **Distribution**
- All Provided *and*  
Owned by  
Utilities

- The Only Participants in the Electric Industry generally were  
**UTILITIES**

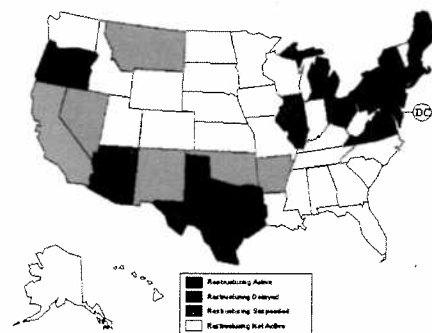
## New Paradigm.... Non-Utility Participants...

### Federal Government Began Allowing...

- Public Utilities Regulatory Policy Act (PURPA) 1978
  - Allowed **non-utility generators** to produce power
  - Qualifying Facilities (**QFs**), small renewable, or co-generators
- Energy Policy Act (EPA) 1992
  - Allowed **more non-utility generators** to produce power Exempt Wholesale Generators (**EWGs**)
  - Mandated **Open Access to Transmission Grid**
    - FERC Orders 888; 889;

## Many state's also moved to open up the **retail generating** segment

Currently sixteen states and the District of Columbia allow retail open access



From U.S. Energy Information Administration (EIA)

[http://www.eia.doe.gov/onepage/electricity/eng\\_str/restructure.pdf](http://www.eia.doe.gov/onepage/electricity/eng_str/restructure.pdf)

## Restructuring in Michigan...

- 1992 ABATE petitions MPSC
- 1996 Michigan Jobs Commission report favors competition
- 1996 MPSC public hearings
- 1998 MPSC Order Implementing Customer Choice
- 1999 Michigan Supreme Court Decision
  - MPSC does not have legal authority to implement “choice”
- 2000 PA 141

2000 PA 141

(MCL 460.10a-10g and 10p-10cc)

*“Customer Choice and Electricity Reliability Act”*

Amend PA 3 of 1939

- 2000 PA 141: Restructure Industry
- 2000 PA 142: Securitization

PA 142 (MCL 460.10h-460.10o)

- The MPSC shall allow a utility to recover “qualified costs” (i.e. stranded)
  - Detroit Edison ~ \$1.77 billion
  - Consumers Energy ~ \$468.6 million
- Recover “qualified” costs by refinancing debt at lower interest rate--securitization
- Bond issuers guaranteed repayment—nonbypassable securitization charge on all customer’s bills (~0.60¢/month)
- Customers will pay securitization charges until 2015 until all bonds are repaid.

## PA 141 Complex

Many provisions

- Choice and Competition
- Alternative Electric Suppliers
- Unbundling
- Renewable energy
- Low Income Energy Assistance
- Interconnection
- Regional Transmission Organizations (RTOs)

## PA 141 Key Provisions

### MCL 460.10a

- MPSC shall issue orders allowing electric customers to be able to choose an Alternative Electric Supplier (AES)
- Alternative Electric Suppliers are non-utilities...generally they buy wholesale power for resale to end-use customers.....They *may* own merchant plants in Michigan or other states

## PA 141 Key Provisions

### MCL 460.10b

- MPSC shall promote new technologies
- MPSC shall unbundle rates to separately identify generation, transmission, and distribution charges—make it easier for customers to compare prices between AES and utility

## PA 141 Key Provisions

### MCL 460.10d Securitization Savings shall be used to

- Provide for a 5% residential rate reduction until Jan. 2006
- Provide for the Low-Income and Energy Efficiency Fund (LIEEF) to fund low-income energy assistance and projects that promote energy efficiency

## Key Provisions PA 141

- MCL 460.10r —The MPSC shall establish the Michigan Renewable Energy Program to promote the use of renewable energy
- MCL 460.10v – Large utilities must expand transmission capabilities by 2000 MW

## PA 141 Key Provisions

### MCL 460.10w

- Large Investor owned utilities (Consumers Energy, Detroit Edison and AEP) must either divest their transmission assets or join a Regional Transmission Organization (RTO)

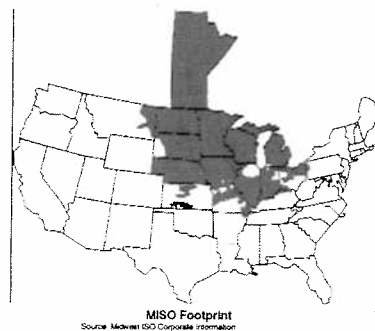
## Regional Transmission Organization (RTO)

- FERC Developed Concept of RTOs to help support deregulation
- Grid Control shifts from IOUs to RTOs
- RTOs responsible for Grid Reliability
- Ensure Open Access
- Plan Transmission Upgrades
- Determine Transmission Pricing

MCL 460.10w requires IOUs to join a RTO or divest transmission.

- Detroit Edison and Consumers Energy joined MISO AND Sold Transmission Lines
  - International Transmission Co. (ITC) now Owns Most Transmission Lines in Michigan
  - The American Transmission Co. (ATC) owns transmission in upper peninsula
- American Electric Power joined PJM Interconnection but kept ownership of its transmission lines.

## Midwest Independent Transmission System Operator (MISO)



Operating in 15 states and the province of Manitoba  
130,000 – 160,000 MW of generation  
~100,000 miles transmission

## Purposes of PA 141 (MCL 460.10)

- (a) To ensure all retail customers have choice...
- (b) To allow the MPSC to foster competition in the state...
- (c) To encourage the construction of Merchant Plants...
- (d) To ensure all persons afforded safe reliable electricity at reasonable rates
- (e) To improve opportunities for economic development...

(a) To ensure all retail customers have choice...

## Retail Electric Customers are...

- Residential
- Commercial
- Industrial
- Residing throughout the Lower Peninsula and the Upper Peninsula

## What is Choice?

Customers who have choice are customers who are being offered a choice by an AES

## Who is offered choice

Commercial and Industrial customers in Detroit Edison's and Consumers Energy Territory

## Who is Not Being Offered Choice

- Small investor owned utility customers (i.e. Alpena Power Co., Edison Sault Electric Co., and other small investor owned utilities)
- Residential Customers
- AEP Customers
- Electric Cooperative Customers

## Typical Choice Customer

According to the MPSC, typical "choice" customers are mid-size commercial customers including retailers, restaurants, healthcare, and other service providers, and school systems.

(b) To allow the MPSC to foster competition in the state...



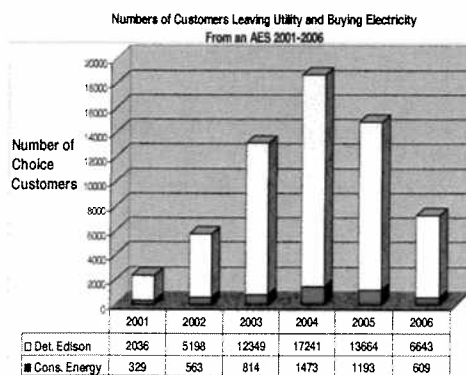
The MPSC gages competition by noting the number of AESs and the number of choice customers...

## Numbers of Licensed and Active AESs

	Licensed AESs	Active AESs
2001	12	
2002	25	15
2003	26	19
2004	28	17
2005	27	18
2006 (As of November)	27	13

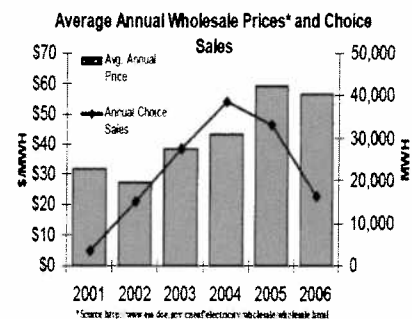
Source MPSC website and MPSC Annual Reports

## The Number of Customers Taking Service from an AES is Declining



## Choice Customers Are Declining Because...

- According to the MPSC, the market prices being offered by AESs are going up due to high wholesale prices and unbundling.



(c) ...to encourage the construction of Merchant Plants

## Merchant Plants Are...

- A power plant owned by an Independent Power Producer (IPP)...i.e. a non-utility, unregulated, business entity
- Generate power and sell on the wholesale generation market

## Several Merchant Plants Began Operating in 2002

New Michigan Capacity Since January 1, 2002

FACILITY NAME	CAPACITY (MW)	OPERATING DATE
Kinder Morgan	550	June 2002
First Energy	340	June 2002
Dynegy	548	June 2002
Mirant Zeeland LLC (phase 2)	530	June 2002
DTE Energy	320	June 2002
Total New Michigan Capacity Since January 1, 2002	2,288	

Source MPSC Annual Report

## Merchant Plant Status as of December 2005

Facility Name	MW	Status	Operating Date
Augusta Park Energy,	340	Delayed	Uncertain
Calpine Corp.	900	Delayed	Uncertain
CME	1,100	Delayed	Uncertain
Dominion/CME	800	Delayed	Uncertain
Dominion/ERORA	600	Delayed	Uncertain
ERORA	605	Delayed	Uncertain
Hannahville	1,000	Delayed	Uncertain
Indeck	1,100	Delayed	Uncertain
International	300	Delayed	Uncertain
Mirant Wyandotte	550	Delayed	Uncertain
Nordic	850	Delayed	Uncertain
Panda Tallmadge/Alliant	1,100	Delayed	Uncertain
New Covert	1,170	Complete	3/1/2004
Sempra	500	Delayed	Uncertain
Tenaska	880	Delayed	Uncertain

(d)...safe, reliable  
electric system

## Reliability means...

An **adequate** and **secure**  
electric system

–Grid Reliability

–Adequate Generation and  
Transmission Sources

## Grid Reliability

- Grid reliability is a regional (if not national) issue
  - MISO controls grid in Michigan and several other states and is responsible for grid reliability--
- Restructuring at federal and state levels have meant that many new entities use the transmission grid
  - More Stress on Grid
  - Grid more complicated
  - Less Room for Error

## What Will Make Grid More Reliable?

- U.S. Energy Policy Act of 2005
  - North American Electric Reliability Council (NERC)  
Reliability Standards are **NOW** mandatory and enforceable
- New Transmission Facilities at Congested Transmission Points
  - Hampered by Uncertainty in who will build and where

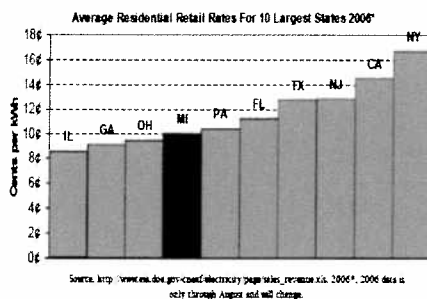
## Adequate Generation

- PA 141 produced a HYBRID electric industry
  - Choice for those who want it...regulation for those who do not
- Has lead to uncertainty about who will build new generation
  - No One (i.e. Utilities, IPPs) is assured cost recovery
- Reliability will be impacted **IF** new generation not built when needed.

## (d) ...reasonable rates

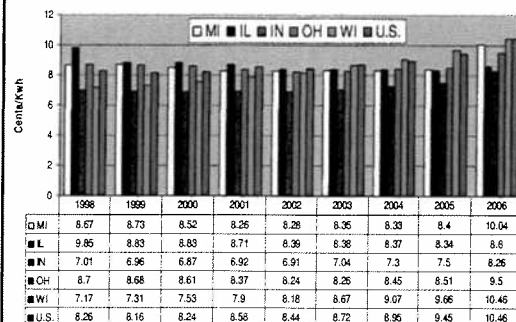
- In general, Michigan's electric rates when viewed in a national perspective have been reasonable.
- Electric prices are increasing across the nation
  - Rising fuel prices

According to the MPSC, Michigan has 4<sup>th</sup> lowest rates amongst the ten most populous states



## Historical and Regional Comparison... Residential Rates

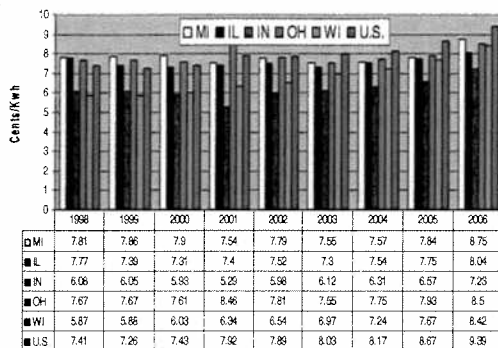
Average Retail Electric Prices: Residential



However, IL rates increased significantly in January 2007 and OH is gradually increasing its rates

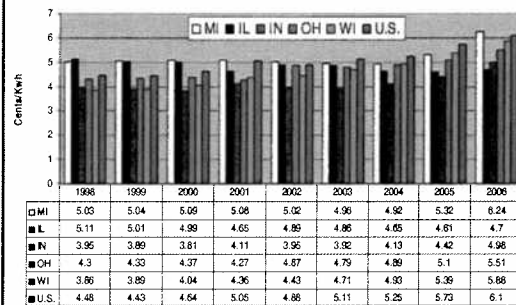
## Commercial Rates

Average Retail Electric Prices: Commercial



## Industrial Rates

Average Retail Electric Prices: Industrial



(e)...economic development  
& financially healthy utilities

Factors to consider

- Credit ratings and outlook
- Stock prices

## In Closing

PA 141 is a complex and comprehensive act that reshaped the electric industry.

## Acknowledgments

Information in this presentation comes from the Michigan Public Service Commission (MPSC), the U.S. Energy Information Administration (EIA), the North American Electric Reliability Council (NERC), and the Federal Energy Regulatory Commission (FERC).

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Hopefully, this analysis  
has been helpful!

Thank You!!

- Questions??
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